

PATENT
674509-2045.1**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants(s) : SØE et al.
U.S. Serial No. : 10/040,394
Filing Date : January 9, 2002
Examiner : Keith D. Hendricks
Art Unit : 1761
For : **IMPROVED METHOD FOR PREPARING
FLOUR DOUGHS AND PRODUCTS MADE
FROM SUCH DOUGHS USING A GLYCEROL
OXIDASE**

745 Fifth Avenue, New York, NY 10151

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Type or print name of person signing certification

Angela M. Nigro
Signature

May 20, 2003
Date of Signature

DECLARATION OF JØRN BORCH SØE

Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

JØRN BORCH SØE DECLARES AND STATES THAT:

1. I am a named co-inventor on the above-captioned application ("the present application"). I am familiar with its text and prosecution, including the March 12, 2003 Office Action. I am a named author and inventor on numerous peer-reviewed articles, issued patents, and published patent applications, in the field to which the present application pertains. In view of my education, training, and experience, I am considered by my peers to be an expert in the field to which the present invention pertains. Furthermore, research reported in the present application and herein was performed by me, or under my direction, supervision, or control, in

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the ordinary course of business. Accordingly, I respectfully submit that I am qualified to speak and render opinions about the present application and the state of the art.

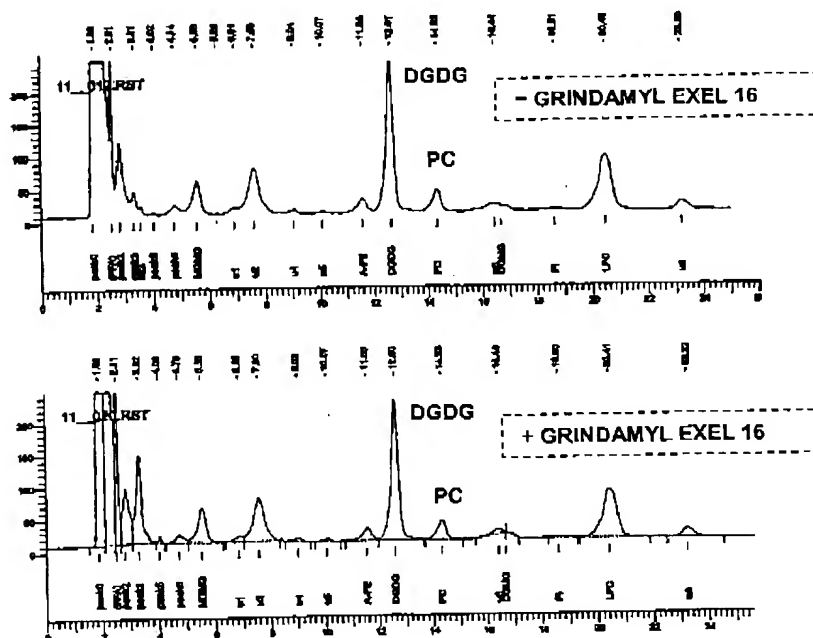
2. This Declaration is directly responsive to the March 12, 2003 Office Action.

3. I respectfully urge reconsideration and withdrawal of the March 12, 2003 Office Action's 35 USC 102(b) and 103(a) rejections based on the *Direct* Newsletter and the *Direct* Newsletter in combination with WO 94/04035, respectively. The present invention is novel and non-obvious over the *Direct* Newsletter and WO 94/04035 because the inventive lipases of the present application hydrolyze triglycerides, glycolipids, phospholipids, and other polar lipids. This remarkably broad substrate specificity is not shared by the lipases of the *Direct* Newsletter or WO 94/04035.

4. The *Direct* Newsletter refers to GRINDAMYL EXEL 26. I am familiar with GRINDAMYL products, as they are products of my employer, the assignee of the instant application. In contrast to the inventive broad-specificity lipases of the present application, the lipase in GRINDAMYL EXEL 26 has no activity towards glycolipids and phospholipids. This difference is exemplified in Figure 1 below, which presents HPLC traces for several compounds in the absence (top panel) or presence (bottom panel) of GRINDAMYL EXEL 16, which includes the same lipase as GRINDAMYL EXEL 26 of the *Direct* Newsletter. In this experiment, the lipase of GRINDAMYL EXEL 16 (and hence the lipase of GRINDAMYL EXEL 26) displayed no activity towards the glycolipid digalactosyl diglyceride (DGDG) or the phospholipid phosphatidyl choline (PC). Accordingly, the *Direct* Newsletter fails to teach or suggest any use of enzymes that have all of the activities of the enzymes of the instant claims, i.e., enzymes that hydrolyze triglycerides, phospholipids, and glycolipids.

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Figure 1



5. The lipases of WO 94/04035 are classified in E.C. 3.1.1.3 as enzymes that hydrolyze triglycerides. WO 94/04035 therefore fails to teach or suggest the use of enzymes that hydrolyze triglycerides, and glycolipids, and phospholipids, as in the present invention.

6. Therefore, the present application contains clear evidence of results achieved by the instant invention that could not have been predicted from the prior art, and was not taught or suggested by the prior art, particularly the *Direct* Newsletter alone or in combination with WO 94/04035.

7. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful statements may jeopardize the validity of the application or any patent issued thereon.

Dated: May 9, 2003

By: Jørn Borch Sørensen
JØRN BORCH SØE